GOAL
Establish a statewide network of State and U.S. Bike Routes, which will provide bicyclists with safe and convenient connections through and to population centers and destinations in Ohio. The system will serve as a strong backbone that local and regional bike networks can build on and connect to across the state.
Ohio’s State and U.S. Bike Route System builds off routes included in the U.S. Bike Route System (U.S.BRS) that was established by the American Association of State Highway and Transportation Officials (AASHTO). The first U.S. Route was designated in 1982. Today there are 41 U.S. Bike Routes that travel across 26 states and the District of Columbia.

There are segments of five U.S. Bike Routes in Ohio encompassing 1,400 miles and providing bike connections to the rest of the country — from Washington, D.C. to San Francisco and from Cleveland to Atlanta. They include U.S.BR 21, 25, 30, 44 and 50.

In addition, Ohio has over 1,600 miles of proposed State Bike Routes throughout the state. They are a combination of trails and on-road facilities. Together these routes connect more than 400 Ohio communities for intrastate travel, recreation and tourism.
WHY

Although most roadways in Ohio are open to bike traffic, there are several reasons for designating, signing and improving specific roadways and shared use paths as part of the State and U.S. Bike Route System.

For road users, they include:
- Identifying the best, or only, travel alignment within a transportation corridor for bicyclists.
- Alerting motorists to the possible presence of bicyclists and reminding the traveling public that bicyclists are legitimate roadway users.
- Accommodating local and long-distance bike travel for users of all ages and abilities.

For communities, they include:
- Promoting economic development through bike tourism. Nationally, research shows that bike travel:
  - Contributes $83 billion annually to the U.S. economy
  - Supports more than 845,000 jobs across the U.S.
  - Produces $97 billion in annual retail sales
- Improving safety, mobility and quality of life for residents and visitors to Ohio.
- Informing local bike network planning and investments.
- Informing statewide investments and coordinating regional and local opportunities to construct safe and accommodating bike facilities along priority routes.

HOW

Ohio’s State and U.S. Bike Route System was developed as part of Access 2040, Ohio’s current long-range transportation plan.

As part of the route identification and selection process, considerations included:
- Low volumes of traffic
- Wide shoulders
- Low speed limits
- Pavement conditions
- Topography

Additional considerations were: route continuity, community connectivity, local support and incorporating existing or proposed regional bike facilities into the State and U.S. Bike Route System.

After the Ohio Department of Transportation (ODOT) developed a draft network, state and partner agency staff and volunteers assisted in vetting the routes in their communities.

Communities can request bike route changes as needed. Details on requesting changes is at bike.ohio.gov, click on State and U.S. Bike Routes. State and U.S. Bike Route maps will be updated quarterly on ODOT’s website.

ODOT is currently working to secure the needed 403 resolutions from local jurisdictions around the state. For a route to be designated, local jurisdictions, such as cities, counties or villages, will sign a resolution of support for the development of State and U.S. Bike Routes in their community. To date over 75% of needed resolutions have been signed.
IMPLEMENTING BIKE ROUTES AROUND OHIO

In addition to designating State and U.S. Bike Routes, ODOT is working with local communities on implementing them. This includes providing guidance on signing the routes and offering maintenance suggestions.

Proposed Signage Guidelines

ODOT is working with local governments and national organizations to sign routes that have statewide and national significance. Bike route designation signage plays a key role providing residents and visitors wayfinding guidance and connectivity between the bike routes and destinations in Ohio.

The Ohio Manual of Uniform Traffic Control Devices (OMUTCD), Part 9, Traffic Control for Bicycle Facilities provides standards and guidelines for the design and placement of bike signs in Ohio.

Signage Overview

State Bike Route Sign

The sign M1-8-alternate (M1-8a) is to be used for routes designated as state bike routes.

U.S. Bike Route Sign

The sign M1-9-alternate (M1-9a) is to be used for routes designated as U.S. bike routes.

- It is ODOT’s intent that the proposed State and U.S. bike route signage will supplement existing route number and wayfinding signs, and that these existing signs will remain in place.

- Where two or more State or U.S. bike routes overlap, the routes should be signed with two or more separate signs instead of multiple routes on the same sign.
ODOT’s Role with Bike Routes Signage

• ODOT will install the initial set of M1-8a and M1-9a signs on local roads and trails included on designated State and U.S. Bike Routes.

• ODOT District Offices are responsible for maintaining State and U.S. bike route signs and auxiliary signs on ODOT-maintained highways, including state route extensions in municipalities in their Districts.

• Sign locations should be approved by District Bicycle and Pedestrian Coordinators for ODOT-maintained highways.

Partners’ Roles with Bike Routes Signage

• The local authority is responsible for maintaining signs on local roads.

• Trail owners are responsible for maintaining signs on trails.

• Sign maintenance includes replacement, when necessary. Replaced signs should match the design and location of the originally installed sign.

• Sign locations on state route extensions in municipalities and on local roads and trails should be approved jointly by the local authority or trail owner and ODOT District Bicycle and Pedestrian Coordinators.

Other Signage Considerations

• For portions of routes located in parks or on off-road trails, trail owners may choose to purchase and install their own wayfinding signage to display route numbers rather than using the M1-8 or M1-9-alternate signs.

• Trail owners may choose to install pavement markings to show State or U.S. bike route numbers in place of bike route signs.
MAINTENANCE SUGGESTIONS

All bike infrastructure requires ongoing maintenance to provide a safe and comfortable environment for users and to prolong infrastructure service life.

Debris from adjacent travel lanes often accumulates in the areas where people bike. Small rocks, branches and other debris can damage a bike wheel. Broken glass can puncture bike tires. These conditions can result in falls and injuries for bicyclists.

**Bike facilities that are not kept free of debris year-round discourage bicyclists from using them. Routine cleaning and clearing, as well as more significant repairs and maintenance, are important to keep bike facilities safe and comfortable in all seasons, year after year.**

Similarly, facilities in colder climates that function well and are safe and comfortable in summer can quickly become much less safe and functional in winter if they are not cleared of snow and ice. It is particularly important to maintain the visibility of pavement markings for bike lanes to provide adequate operational and safety benefits.
FACILITY DESIGN RECOMMENDATIONS

The State and U.S. Bike Route System is intended to provide safe, comfortable and convenient connections to residents and visitors of all ages and abilities. It’s important for agencies to continuously work over time to enhance the system and improve accommodations and the level of service afforded to bicyclists.

Choosing the most appropriate accommodations and bike facility requires a balance of data analysis, engineering judgment, community input and available funding. As opportunities present themselves to improve the accommodations along these routes, it is important to enhance the system. Here are several examples of context sensitive alternatives to consider for the long-term development of this system.

Sample Rural Bike Route Facility

For facility selection, planners and designers should refer to FHWA’s Bikeway Selection Guide Figure 9. Widths shown are for local roadways with a posted speed of 50-55mph and design ADT of less than 750 vehicles per day. Designers should refer to design guidance referenced for widths and spacing appropriate for other scenarios.

2. Sidewalk - ODOT Location and Design Manual Volume I - 702 Shared Use Paths
   FHWA Small Town and Rural Multimodal Networks - Sidewalks
3. Horizontal Offset from Path - ODOT Location and Design Manual Volume I - 702 Shared Use Paths
4. Lateral Offset from Roadway - ODOT Location and Design Manual Volume I - 600-1E
5. Travel Lanes - ODOT Location and Design Manual Volume I - 301-2E
6. Paved Shoulder - ODOT Location and Design Manual Volume I - 308.4 Paved Shoulders
   FHWA Small Town and Rural Multimodal Networks - Paved Shoulder
Sample Suburban Bike Route Facility

For facility selection, planners and designers should refer to *FHWA's Bikeway Selection Guide Figure 9,* Widths shown are for roadways with a posted speed of 25-55mph and design ADT of 3,000-10,000 vehicles per day. Designers should refer to design guidance referenced for widths and spacing appropriate for their specific scenario.

1. **Graded Shoulder** - ODOT Location and Design Manual Volume I - 702 Shared Use Paths
2. **Sidepath** - ODOT Location and Design Manual Volume I - 702 Shared Use Paths
   - FHWA Small Town and Rural Multimodal Networks - Sidepaths
3. **Lateral Offset from Roadway** - FHWA Small Town and Rural Multimodal Networks - Sidepaths
   - ODOT Location and Design Manual Volume I - 600-1E
4. **Travel Lanes** - ODOT Location and Design Manual Volume I - 301-2E
   - FHWA Achieving Multimodal Network - Part 1 Lane Widths
5. **Bike Lanes** - NACTO Urban Bikeway Design Guide - Conventional Bike Lanes
   - FHWA Small Town and Rural Multimodal Networks - Paved Shoulder
Sample Urban Bike Route Facility

For facility selection, planners and designers should refer to FHWA’s Bikeway Selection Guide Figure 9. Widths shown are for roadways with a posted speed of 25-55mph and design ADT of 3,000-10,000 vehicles per day. Designers should refer to design guidance referenced for widths and spacing appropriate for their specific scenario.

1 Separated Bike Lane - FHWA Separated Bike Lane - Design Recommendations
2 Separated Bike Lane Buffer - FHWA Separated Bike Lane - Design Recommendations
3 Travel Lanes - ODOT Location and Design Manual Volume I - 301-2E
   FHWA Achieving Multimodal Network - Part 1 Lane Widths
4 Bike Lane - NCHRP Report 766 Recommended Bike Lane Widths for Various Roadway Characteristics Section 3
5 Bike Lane Buffer - NCHRP Report 766 Recommended Bike Lane Widths for Various Roadway Characteristics Section 3
6 Parking Lane
FUNDING MECHANISMS

There are several funding programs available to local agencies for improving the State & U.S. Bike Route System in Ohio. ODOT’s Program Resource Guide details different programs and their eligibility requirements. Several of the most applicable funding sources are highlighted below:

Transportation Alternatives Program
The Transportation Alternatives Program (TAP) is one of the most common funding sources of active transportation projects. It provides funds for projects that advance bike, pedestrian and recreational trail facilities to municipalities outside of Ohio’s MPO boundaries.

Metropolitan Planning Organizations & Large Cities Program
ODOT annually sub-allocates a portion of TAP funding via its Metropolitan Planning Organizations (MPO) and Large Cities Program. Municipalities inside of MPO boundaries can apply directly to their respective MPO for TAP funding. Eligible activities include separated bike lanes, new sidewalks, bike parking racks, bike lockers, safety lighting and adjustments to meet ADA requirements. Projects that connect activity centers such as businesses, schools, libraries, shopping areas or recreational areas receive higher priority.

Highway Safety Improvement Program
ODOT works with MPOs and local governments to identify locations with severe traffic safety problems and fund infrastructure improvements in these areas through the Highway Safety Improvement Program (HSIP). HSIP funds are available for safety projects aimed at reducing traffic fatalities and serious injuries. Bike lanes, roadway shoulders, crosswalks, intersection improvements, underpasses and signs with proven safety benefits are examples of eligible projects. Projects in high-crash locations are most likely to receive funding. HSIP funds are available through ODOT to ODOT staff and local governments and can be used to make improvements on any public roadway.

Safe Routes to School
The Safe Routes to School (SRTS) program provides funds for safety projects that encourage or enable children in grades K-8, including those with disabilities, to walk or ride their bikes to school. Eligible SRTS-funded projects include traffic calming, enhanced crossing treatments, signal upgrades, sidewalks and other infrastructure countermeasures. These treatments are most effective when used in combination with non-infrastructure solutions (education, encouragement, enforcement and evaluation).

Recreational Trails Program
The federal Recreational Trails Program (RTP) provides funds to states to develop and maintain trails and trail-related facilities for non-motorized and motorized recreational trail uses. In Ohio, the RTP is administered by the Ohio Department of Natural Resources. Eligible projects include: maintenance and restoration of existing trails, development and rehabilitation of trailside and trailhead facilities, trail linkages for recreational trails, purchase or lease of recreational trail construction and maintenance equipment, construction of new recreational trails, land acquisition for trail construction and educational programs to promote safety and environmental protection as it relates to using recreational trails.

Clean Ohio Trails Fund
The Clean Ohio Trails Fund (COTF) is funded through state bonds sales to provide funding for construction of long-distance trails or acquisition of long-distance trail corridors. COTF works to improve outdoor recreational opportunities for Ohioans by funding trails for outdoor pursuits of all kinds. Eligible projects include: land acquisition for a trail, trail development, engineering and design. Local governments, park and joint recreation districts, conservancy districts, soil and water conservation districts, and non-profit organizations are eligible to apply for trail project grants from COTF.

Other Sources
In addition to relying on state and federal funding, ODOT districts, counties and local jurisdictions can allocate money from their operating and capital budgets to implement infrastructure improvements. Beyond the sources listed, other options include working with utility companies and developers to include active transportation infrastructure into their projects. The costs for sidewalks, bike lanes and trails are much less when they are added to existing projects than when they are constructed on their own.